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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

5

Office Action Summary	Application No.	Applicant(s)
	10/713,288	WU ET AL.
	Examiner	**Art Unit**
	Andrew Tank	2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6,8-10,12,15-20,22-25,27-29,31,34-39,41-56 and 59-65* is/are pending in the application.

4a) Of the above claim(s) ______ is/are withdrawn from consideration.

5)☐ Claim(s) ______ is/are allowed.

6)☒ Claim(s) *1-3,6,8-10,12,15-20,22-25,27-29,31,34-39,41-56 and 59-65* is/are rejected.

7)☐ Claim(s) ______ is/are objected to.

8)☐ Claim(s) ______ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 June 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. ______.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ______.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. ______ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: ______.

DETAILED ACTION

1. The following action is in response to the amendment of June 25, 2007. Claims 1-3, 6, 8-10, 12, 15-20, 22-25, 27-29, 31, 34-39, 41-56, and 59-61 have been amended. Claims 4, 5, 7, 11, 13, 14, 21, 26, 30, 32, 33, 40, 57, and 58 have been cancelled. Claims 62-65 have been added to prosecution. Claims 1-3, 6, 8-10, 12, 15-20, 22-25, 27-29, 31, 34-39, 41-56, and 59-65 are pending and have been considered below.

Drawings

2. The objection to Fig. 14 is withdrawn in light of the replacement of Fig. 14.

3. The objection to Drawings for including reference characters not in the specification is withdrawn in light of the amendment to the Specification.

4. Applicant has submitted additional amendments to the Drawings. The examiner has reviewed these amendments for new matter, and has entered them into record.

Specification

5. The informalities objections to the Specification are withdrawn in light of the amendment to the Specification.

6. Applicant has submitted additional amendments to the Specification. The examiner has reviewed these amendments for new matter, and has entered them into record.

Claim Objections

7. The Claims objections of Claims 7, 11, 13-14, 21, 26, 30, 32-33, and 40 are withdrawn in light of the cancellation of the relevant claims.

8. Claim 27 is objected to for the following reasons: minor informalities. There seems to be a minor typographical error in the claim at lines 8 and 9, "pint", should be "point".

Claim Rejections - 35 USC § 112

9. The 35 U.S.C. 112 second paragraph rejections of Claims 10, 28, and 29 are withdrawn in light of the amendment to the relevant claims.

10. The lack of sufficient antecedent basis rejection of Claim 3 is withdrawn in light of the amendment to relevant claim.

11. The lack of sufficient antecedent basis rejection of Claims 16, 35, 43, and 50 are withdrawn in light of the amendment to the relevant, respective parent claims 15, 34, 42, and 49.

12. The lack of sufficient antecedent basis rejection of Claim 60 is withdrawn in light of the amendment to the relevant, respective parent claim 59.

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. **Claims 1-3, 6, 8-10, 12, 15-20, 22-25, 27-29, 31, 34-39, 41-56, and 59-65** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 20, 25, 39, 47, 54 and 61: Claims 6, 20, 25, 39, 47, 54 and 61 all reflect the limitation of rounding the display coordinates of the target graphic object to an integer value in order to

output it on a target screen to be displayed. However, the mathematical process of 'rounding' involves rounding down when a number is below half, i.e. 1.49 becomes 1.0, or rounding up when a number is half or above half, i.e. 1.5 or 1.8 become 2.0. In the case that the target screen has a pixel ratio of 1280:800, and our resizing has caused a one of the target objects coordinate to become (900.3, 800.6), then rounding this will cause said one of our target object's coordinate to become (900, 801), causing this target object out of bounds of our target screen.

Claims 1, 8-10, 22, 27-29, and 55: The term "substantially" in claims 1, 8-10, 22, 27-29, and 55 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. A screen with a fixed number of pixels in a defined aspect ratio will have an absolutely rectangular shape. Resizing an object on that screen results in pixels that can be displayed. However, if the screen is only "substantially" rectangular, then the aspect ratio is not defined in a way that is known in the art, thereby rendering the claim indefinite. Further, resizing a "substantially" rectangular object using the intersecting line of the claims around a left or right edge of the object may yield unpredictable results, i.e. in the case that the object is "substantially" rectangular by having rounded corners but straight and parallel edges. With regards to claims 2-3 and 6, 12 and 15-20, 23-25, 31 and 34-39, and 56, 59-63 and 64-65 which depend either directly or indirectly upon rejected claims 1, 8, 22, 27, and 55 respectively, and failing to resolve the issues regarding indefinite subject matter of claims 1, 8, 22, 27, and 55 are rejected under similar rationale.

Claims 41-47, 48-54, 56, and 61-62: Claim 41 and 48 recite the limitations "proportionately wider" and "proportionately higher", claims 56 and 62 recite the limitation "proportionately wider", and claim 61 recites the limitation "proportionately higher". When an object with a width (W1) and height (H1) is proportional to another object with a width (W2) and a height (H2), it means that the ratio of their height and width are the same ($R1 = H1/W1$, $R2 = H2/W2$, $R1 = R2$), even when the actual values of height and width change. Therefore, an object which is "proportionately wider" will have a larger width than the object to which it is being compared. However, its height will also be larger in order to maintain the proportion. When calculating the stretch distance (S) recited later in the above claims, it is calculated, in the case that a target screen is "proportionately wider" than an original screen, by subtracting the product of the height ratio (H2/H1) and the width of the original screen (W1) from the width of the target screen (W2), i.e. $S = W2 - H2/H1(W1)$. As established, the ratio of the target screen is equal to the ratio of the original screen because they are still proportional, i.e. $R2 = R1$, $H2/W2 = H1/W1$, or $W1 = H1/H2(W2)$. Therefore, $S = W2 – H2/H1(H1/H2)(W2) = W2 – W2 = 0$, i.e. the stretch distance in the case of "proportionately wider", and using the same reasoning "proportionately higher", is zero. Adding this stretch distance to transform the object then results in no further transform as it would be addition by zero. It is therefore unclear whether the calculation for the stretch distance is wrong, the "proportionately" limitations are wrong, or the stretch distance addition limitations are wrong. With regards to claims 42-47 and 49-54, which depend either directly or indirectly upon rejected claims 41 and 48 respectively, and failing to resolve the issues regarding indefinite subject matter of claims 41 and 48, are rejected under similar rationale.

Claim 22: Claim 22 recites the limitation "first original graphic data object" in line 9. There is insufficient antecedent basis for this limitation in the claim. The examiner will interpret this as "the original graphic data object".

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. **Claims 1-3, 6, 8-10, 12, 15-20, 22-25, 27-29, 31, 34-39, 41-56, and 59-65** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka et al. (US 7,216,293), hereafter known as "Kataoka", in view of Qureshi et al. (US 6,456,305), hereafter known as "Qureshi".

Claim 1: Kataoka discloses a method comprising:

identifying an original graphic data object (Fig. 3 324, 325, 326) rendered in association with a substantially rectangular original screen (Fig. 3 300) having a horizontal axis and a vertical axis (col 6 lines 23-26), wherein the original screen has a resizing point on the horizontal axis such that a line extending through the resizing point and parallel to the vertical axis (Fig. 3 341 "transformation assist line" intersects a point on the horizontal axis) intersects the original graphic data object (Fig. 3 341 intersects objects 324, 325, 326);

obtaining a target graphic object by adding a stretch distance (col 7 lines 48-52 "expand in width") to the width of the original graphic data object; and

rendering the target graphic data object in association with a screen (col 7 lines 17-18, Fig. 3, 4), wherein the target screen has a different aspect ratio than the original screen (col 7 lines 19-20, Fig. 9-10 Container Information).

However, Kataoka does not disclose that the original graphic data object is first proportionately modified to obtain a proportionate graphic object before a target graphic data object is obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 2: Kataoka and Qureshi disclose the graphic object scaling method as in claim 1 above, and Qureshi further discloses wherein proportionally modifying the size of the original graphic data object comprises proportionally modifying the size of the original graphic data object by a

ratio of the target screen height to the original screen height (Fig. 10B 264). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to use the height ratio, as taught by Qureshi, to proportionately increase the size of the original graphic data object in the scaling method of Kataoka and Qureshi. One would have been motivated to use the height ratio in order to properly scale the object to fit the new space available, as suggested by Qureshi (col 3 lines 44-67).

Claim 3: Kataoka and Qureshi disclose the graphic object scaling method as in claim 1 above, and Kataoka further discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22). Kataoka does not disclose that the distance from which the expansion is calculated is a proportionate width that is calculated as product of the height ratio, i.e. the target screen height to the original screen height, and the width of the original screen. Qureshi discloses comparing the height of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 264). This scaling factor is then used to calculate the new width (Fig. 10B 268). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the distance of expansion through a proportionate width calculation. One would have been motivated to do this in order to easily control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

Claim 6: Kataoka and Qureshi disclose the graphic object scaling method as in claim 1 above, and while Kataoka discloses outputting a display that includes the target graphic data object

(Abstract), neither Kataoka nor Qureshi explicitly disclose calculating display coordinates by rounding to an integer value, coordinates associated with the target graphic data object, thereby potentially modifying the size of the target graphic data object. However, Official Notice is taken that it is old and well known in the graphic display arts to round display values to integers in order to display graphical objects on an integer pixel display system. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time the present invention was made, to round the calculated coordinate values of the target graphic object to obtain an integer value. One would have been motivated to round to the nearest integer value in order to prevent loss of graphic display object due to the pixel display systems' inability to render color at a fraction of a pixel.

Claim 62: Kataoka and Qureshi disclose the graphic object scaling method as in claim 1 above, and Kataoka further discloses wherein the target screen is proportionately wider than the original screen (Fig. 9, 10, col 10 lines 36-39).

Claim 8: Kataoka discloses a method comprising:

identifying a substantially rectangular first original graphic data object (Fig. 3 324, 325, 326) rendered in association with a substantially rectangular original screen (Fig. 3 300) having an x-axis (col 6 lines 23-26), wherein the original screen has a resizing point on the x-axis such that a line extending through the resizing point and perpendicular to the x-axis (Fig. 3 341 "transformation assist line" intersects a point on the horizontal axis and is perpendicular to the x-axis) intersects the original graphic data object (Fig. 3 341 intersects objects 324, 325, 326);

obtaining a target graphic object by adding a stretch distance (col 7 lines 48-52 "expand in width") to the width of the original graphic data object; and

rendering the target graphic data object in association with a screen (col 7 lines 17-18, Fig. 3, 4), wherein the target screen has a different aspect ratio than the original screen (col 7 lines 19-20, Fig. 9-10 Container Information).

However, while Kataoka does discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22), Kataoka does not disclose that the distance from which the expansion is calculated is a width that is calculated as product of the height ratio, i.e. the target screen height to the original screen height, and the width of the original screen. Qureshi discloses comparing the height of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 264). This scaling factor is then used to calculate the new width (Fig. 10B 268). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the subtracting the product of the height ratio and the width of the original screen from the width of the target screen. One would have been motivated to do this in order to easily control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

_Further, Kataoka does not disclose that the original graphic data object is first proportionately modified by multiplying each of the height, width, distance from the top edge, and distance from the left edge of the first original graphic data object by the height ratio to obtain a proportionate graphic object before a target graphic data object is obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects to fit the dimensions and

video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273, i.e. multiplying by a constant) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 9: Kataoka and Qureshi disclose the graphic object scaling method as in claim 8 above, and Kataoka further discloses:

identifying a substantially rectangular second original graphic data object rendered in association with the original screen (Fig. 3 321, 322, 323), wherein the second original graphic data object has a right edge to the left of the line extending through the resizing point and perpendicular to the x-axis (Fig. 3 321, 322, 323 each have right edges to the left of line 341);

rendering the second graphic data object in association with the target screen (Fig. 4 321, 322, 323).

Kataoka further discloses that the arrangement and sizes of the GUI parts are changed depending on the where they are relative to the transformation line (col 7 lines 35-39). While

Kataoka and Qureshi do not specifically disclose the resizing of a second original graphic object to obtain a second target graphic object, Kataoka and Qureshi do disclose, in claim 8, the proportional resizing of an original graphic object to obtain a proportionate original graphic object by a height ratio before stretching it by a stretch distance to obtain a target original graphic object. Therefore, it would have been obvious to one of ordinary skill in the art having the teachings of Kataoka and Qureshi before him at the time the present invention was made, to change the size of a second original graphic data object to a proportional second original graphic data object, as taught by Qureshi and Kataoka, when the second original graphic data object has a right edge to the left of the resizing line, as taught by Kataoka, to obtain a target second original graphic data object for rendering in association with the target screen that is proportionately resized by the height ratio and maintained to the left of the transformation assist line. One would have been motivated to do this in order to first scale the all the objects to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 10: Kataoka and Qureshi disclose the graphic object scaling method as in claim 8 above, and Kataoka further discloses:

identifying a substantially rectangular second original graphic data object rendered in association with the original screen (Fig. 3 331, 332), wherein the second original graphic data object has a left edge to the right of the line extending through the resizing point and perpendicular to the x-axis (Fig. 3 331, 332 each have right edges to the left of line 341);

rendering the second graphic data object in association with the target screen (Fig. 4 331, 332).

Kataoka further discloses that the arrangement and sizes of the GUI parts are changed depending on the where they are relative to the transformation line (col 7 lines 35-39). While Kataoka and Qureshi do not specifically disclose the resizing of a second original graphic object to obtain a second target graphic object, Kataoka and Qureshi do disclose, in claim 8, the proportional resizing of an original graphic object to obtain a proportionate original graphic object by a height ratio before stretching it by a stretch distance to obtain a target original graphic object. Therefore, it would have been obvious to one of ordinary skill in the art having the teachings of Kataoka and Qureshi before him at the time the present invention was made, to change the size of a second original graphic data object to a proportional second original graphic data object, as taught by Qureshi and Kataoka, when the second original graphic data object has a left edge to the right of the resizing line, as taught by Kataoka, to obtain a target second original graphic data object for rendering in association with the target screen that is proportionately resized by the height ratio and maintained to the right of the transformation assist line. One would have been motivated to do this in order to first scale the all the objects to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 12: Kataoka and Qureshi disclose the graphic object scaling method as in claim 8 above, and Kataoka further discloses wherein the first original graphic data object is designated as being disproportionately resizable because the line extending through the resizing point and

perpendicular to the x-axis intersects the first original graphic object (col 7 lines 51-52 "based on their location relative to the transformation assist line", Fig. 3 line 341 intersects objects 324, 325, 326).

Claim 15: Kataoka and Qureshi disclose the graphic object scaling method as in claim 8 above, and Qureshi further discloses obtaining graphic characteristics for and text attached to the original graphic data object on the original screen (col 12 lines 1-13, lines 35-42); repositioning the attached text to correspond to the target graphic data object on the target screen (col 13 lines 41-52); and applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen (col 15 lines 27-35). Therefore, it would have been obvious to one having ordinary skill in the art, and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to include said characteristic and text reformatting and application steps, as taught by Qureshi, in the graphic object scaling method taught by Kataoka and Qureshi. One would have been motivated to include these steps in order to preserve the originally disclosed information and properties so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 16: Kataoka and Qureshi disclose the graphic object scaling method, including obtaining and maintaining graphical characteristics for and text attached to the original graphic data object after scaling, as in claim 15 above, and Qureshi further discloses the repositioning further comprises maintaining the text within the opposing top and bottom edges and the opposing left and right edges of the first target graphic object (col 15 lines 11-20). Therefore, it would have been obvious to one having ordinary skill, and having the teachings of Kataoka and Qureshi

before them at the time the invention was made, to maintain the attached text within the confines of the rectangular graphic object, as taught by Qureshi, when the original graphic data object is resized according to the method taught by Kataoka and Qureshi. One would have been motivated to reformat the text in such a way as to preserve the integrity of the information conveyed by the text before and after the size increase of the original graphic data object, thereby conveying the same information to an end-user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claims 17-19: Kataoka and Qureshi disclose the graphic object scaling method, including obtaining and maintaining graphical characteristics for and text attached to the original graphic data object after scaling, as in claim 15 above, and Qureshi further discloses obtaining different characteristics of slide presentations (col 12 lines 1-13, lines 35-42). One having ordinary skill in the art at the time the invention was made would understand that the different characteristics of a slide presentation include fill patterns, color designation, and border styles. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time of the invention was made, to maintain these known characteristics, as taught by Qureshi, after the size change conducted by the method taught by Kataoka and Qureshi. One would have been motivated to maintain these features in order to preserve the originally disclosed information and properties, so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 20: Kataoka and Qureshi disclose the graphic object scaling method as in claim 8 above, and while Kataoka discloses outputting a display that includes the target graphic data object

(Abstract), neither Kataoka nor Qureshi explicitly disclose calculating display coordinates by rounding to an integer value, coordinates associated with the target first graphic data object, thereby potentially modifying the size of the target first graphic data object. However, Official Notice is taken that it is old and well known in the graphic display arts to round display values to integers in order to display graphical objects on an integer pixel display system. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time the present invention was made, to round the calculated coordinate values of the target first graphic object to obtain an integer value. One would have been motivated to round to the nearest integer value in order to prevent loss of graphic display object due to the pixel display systems' inability to render color at a fraction of a pixel.

Claim 22: Kataoka discloses a method comprising:

identifying an original graphic data object (Fig. 3 326) rendered in association with a substantially rectangular original screen (Fig. 3 300) having a y-axis (col 6 lines 23-26), wherein the original screen has a resizing point on the y-axis such that a line extending through the resizing point and perpendicular to the y-axis (Fig. 3 342 "transformation assist line" intersects a point on the y-axis and is perpendicular to the y-axis) intersects the original graphic data object (Fig. 3 342 intersects objects 326);

obtaining a target graphic object by adding a stretch distance (col 7 lines 48-52 "expand in height direction") to the height of the original graphic data object; and

rendering the target graphic data object in association with a screen (col 7 lines 17-18, Fig. 3, 4), wherein the target screen has a different aspect ratio than the original screen (col 7 lines 19-20, Fig. 9-10 Container Information).

However, Kataoka does not disclose that the original graphic data object is first proportionately modified to obtain a proportionate graphic object before a target graphic data object is obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 23: Kataoka and Qureshi disclose the graphic object scaling method as in claim 22 above, and Qureshi further discloses wherein proportionally modifying the size of the original graphic data object comprises proportionally modifying the size of the original graphic data object by a ratio of the target screen width to the original screen width (Fig. 10B 262). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to use the width ratio, as

taught by Qureshi, to proportionately increase the size of the original graphic data object in the scaling method of Kataoka and Qureshi. One would have been motivated to use the width ratio in order to properly scale the object to fit the new space available, as suggested by Qureshi (col 3 lines 44-67).

Claim 24: Kataoka and Qureshi disclose the graphic object scaling method as in claim 22 above, and Kataoka further discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22). Kataoka does not disclose that the distance from which the expansion is calculated is a proportionate height that is calculated as product of the width ratio, i.e. the target screen width to the original screen width, and the height of the original screen. Qureshi discloses comparing the width of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 262). This scaling factor is then used to calculate the new height (Fig. 10B 270). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the distance of expansion through a proportionate height calculation. One would have been motivated to do this in order to easily control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

Claim 25: Kataoka and Qureshi disclose the graphic object scaling method as in claim 22 above, and while Kataoka discloses outputting a display that includes the target graphic data object (Abstract), neither Kataoka nor Qureshi explicitly disclose calculating display coordinates by rounding to an integer value, coordinates associated with the target graphic data object, thereby potentially modifying the size of the target graphic data object. However, Official Notice is

taken that it is old and well known in the graphic display arts to round display values to integers in order to display graphical objects on an integer pixel display system. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time the present invention was made, to round the calculated coordinate values of the target graphic object to obtain an integer value. One would have been motivated to round to the nearest integer value in order to prevent loss of graphic display object due to the pixel display systems' inability to render color at a fraction of a pixel.

Claim 27: Kataoka discloses a method comprising:

identifying a substantially rectangular first original graphic data object (Fig. 3 326) rendered in association with a substantially rectangular original screen (Fig. 3 300) having an y-axis (col 6 lines 23-26), wherein the original screen has a resizing point on the y-axis such that a line extending through the resizing point and perpendicular to the y-axis (Fig. 3 342 "transformation assist line" intersects a point on the y-axis and is perpendicular to the y-axis) intersects the first original graphic data object (Fig. 3 342 intersects 326);

obtaining a target graphic object by adding a stretch distance (col 7 lines 48-52 "expand in height") to the height of the original graphic data object; and

rendering the target graphic data object in association with a screen (col 7 lines 17-18, Fig. 3, 4), wherein the target screen has a different aspect ratio than the original screen (col 7 lines 19-20, Fig. 9-10 Container Information).

However, while Kataoka does discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22), Kataoka does not disclose that the distance from which the expansion is calculated is a height that is calculated as product of the

width ratio, i.e. the target screen width to the original screen width, and the height of the original screen.. Qureshi discloses comparing the height of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 264). This scaling factor is then used to calculate the new width (Fig. 10B 268). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the subtracting the product of the width ratio and the height of the original screen from the height of the target screen. One would have been motivated to do this in order to easily control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

Further, Kataoka does not disclose that the original graphic data object is first proportionately modified by multiplying each of the height, width, distance from the top edge, and distance from the left edge of the first original graphic data object by the width ratio to obtain a proportionate graphic object before a target graphic data object is obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273, i.e. multiplying by a constant) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a

proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 28: Kataoka and Qureshi disclose the graphic object scaling method as in claim 27 above, and Kataoka further discloses:

identifying a substantially rectangular second original graphic data object rendered in association with the original screen (Fig. 3 321, 322, 323), wherein the second original graphic data object has a bottom edge to the top of the line extending through the resizing point and perpendicular to the y-axis (Fig. 3 321, 322, 323 each have bottom edges to the top of line 342);

rendering the second graphic data object in association with the target screen (Fig. 4 321, 322, 323).

Kataoka further discloses that the arrangement and sizes of the GUI parts are changed depending on the where they are relative to the transformation line (col 7 lines 35-39). While Kataoka and Qureshi do not specifically disclose the resizing of a second original graphic object to obtain a second target graphic object, Kataoka and Qureshi do disclose, in claim 27, the proportional resizing of an original graphic object to obtain a proportionate original graphic object by a width ratio before stretching it by a stretch distance to obtain a target original graphic object. Therefore, it would have been obvious to one of ordinary skill in the art having the teachings of Kataoka and Qureshi before him at the time the present invention was made, to

change the size of a second original graphic data object to a proportional second original graphic data object, as taught by Qureshi and Kataoka, when the second original graphic data object has a bottom edge to the top of the resizing line, as taught by Kataoka, to obtain a target second original graphic data object for rendering in association with the target screen that is proportionately resized by the width ratio and maintained to the top of the transformation assist line. One would have been motivated to do this in order to first scale the all the objects to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 29: Kataoka and Qureshi disclose the graphic object scaling method as in claim 27 above, and Kataoka further discloses:

identifying a substantially rectangular second original graphic data object rendered in association with the original screen (Fig. 5 325), wherein the second original graphic data object has a top edge to the bottom of the line extending through the resizing point and perpendicular to the y-axis (Fig. 5 325 has top edge below line 342a);

rendering the second graphic data object in association with the target screen (Fig. 6 325).

Kataoka further discloses that the arrangement and sizes of the GUI parts are changed depending on the where they are relative to the transformation line (col 7 lines 35-39). While Kataoka and Qureshi do not specifically disclose the resizing of a second original graphic object to obtain a second target graphic object, Kataoka and Qureshi do disclose, in claim 27, the proportional resizing of an original graphic object to obtain a proportionate original graphic object by a width ratio before stretching it by a stretch distance to obtain a target original graphic

object. Therefore, it would have been obvious to one of ordinary skill in the art having the teachings of Kataoka and Qureshi before him at the time the present invention was made, to change the size of a second original graphic data object to a proportional second original graphic data object, as taught by Qureshi and Kataoka, when the second original graphic data object has a top edge below the resizing line, as taught by Kataoka, to obtain a target second original graphic data object for rendering in association with the target screen that is proportionately resized by the width ratio and maintained to the bottom of the transformation assist line. One would have been motivated to do this in order to first scale the all the objects to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 31: Kataoka and Qureshi disclose the graphic object scaling method as in claim 27 above, and Kataoka further discloses wherein the first original graphic data object is designated as being disproportionately resizable because the line extending through the resizing point and perpendicular to the y-axis intersects the first original graphic object (col 7 lines 51-52 "based on their location relative to the transformation assist line", line 342 intersects object 326).

Claim 34: Kataoka and Qureshi disclose the graphic object scaling method as in claim 27 above, and Qureshi further discloses obtaining graphic characteristics for and text attached to the original graphic data object on the original screen (col 12 lines 1-13, lines 35-42); repositioning the attached text to correspond to the target graphic data object on the target screen (col 13 lines 41-52); and applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen (col 15 lines 27-35).

Therefore, it would have been obvious to one having ordinary skill in the art, and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to include said characteristic and text reformatting and application steps, as taught by Qureshi, in the graphic object scaling method taught by Kataoka and Qureshi. One would have been motivated to include these steps in order to preserve the originally disclosed information and properties so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 35: Kataoka and Qureshi disclose the graphic object scaling method, including obtaining and maintaining graphical characteristics for and text attached to the original graphic data object after scaling, as in claim 34 above, and Qureshi further discloses the repositioning further comprises maintaining the text within the opposing top and bottom edges and the opposing left and right edges of the first target graphic object (col 15 lines 11-20). Therefore, it would have been obvious to one having ordinary skill, and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to maintain the attached text within the confines of the rectangular graphic object, as taught by Qureshi, when the original graphic data object is resized according to the method taught by Kataoka and Qureshi. One would have been motivated to reformat the text in such a way as to preserve the integrity of the information conveyed by the text before and after the size increase of the original graphic data object, thereby conveying the same information to an end-user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claims 36-38: Kataoka and Qureshi disclose the graphic object scaling method, including obtaining and maintaining graphical characteristics for and text attached to the original graphic

data object after scaling, as in claim 34 above, and Qureshi further discloses obtaining different characteristics of slide presentations (col 12 lines 1-13, lines 35-42). One having ordinary skill in the art at the time the invention was made would understand that the different characteristics of a slide presentation include fill patterns, color designation, and border styles. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time of the invention was made, to maintain these known characteristics, as taught by Qureshi, after the size change conducted by the method taught by Kataoka and Qureshi. One would have been motivated to maintain these features in order to preserve the originally disclosed information and properties, so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 39: Kataoka and Qureshi disclose the graphic object scaling method as in claim 27 above, and while Kataoka discloses outputting a display that includes the target graphic data object (Abstract), neither Kataoka nor Qureshi explicitly disclose calculating display coordinates by rounding to an integer value, coordinates associated with the target graphic data object, thereby potentially modifying the size of the target graphic data object. However, Official Notice is taken that it is old and well known in the graphic display arts to round display values to integers in order to display graphical objects on an integer pixel display system. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time the present invention was made, to round the calculated coordinate values of the target graphic object to obtain an integer value. One would have been motivated to

round to the nearest integer value in order to prevent loss of graphic display object due to the pixel display systems' inability to render color at a fraction of a pixel.

Claim 41: Kataoka discloses a computer readable media comprising computer-readable instructions which, when executed by a computing system, direct the computing system (col 14 lines 65-67) to transform an original screen to a target screen (Abstract "change in display size") by:

identifying the original screen (Fig. 3 300, Fig. 9 Container) and target screen (Fig. 4 300, Fig. 10 Container) , wherein:

the original and target screens each have opposing top and bottom edges with a respective height there between and opposing left and right edges with a respective width there between (Fig. 3 300, Fig. 4 300);

identifying an original graphic data object on the original screen (Fig. 3 321-326, 331-332), wherein

the original graphic data object has opposing top and bottom edges with a respective height there between and opposing left and right edges with a respective width there between (Fig. 3 321-326, 331-332);

in the event that the target screen is proportionately wider than the original screen:

identifying a resizing point along a horizontal axis of the original screen (Fig. 3 341 "transformation assist line" intersects a point on the horizontal axis);

determining that the original graphic data object is disproportionately resizable because a line through the resizing point and perpendicular to the horizontal axis

intersects the original graphic object (col 7 lines 51-52 "based on their location relative to the transformation assist line", line 341 intersects objects 324, 325, 326);

obtaining a target graphic object by adding a stretch distance (col 7 lines 48-52 "expand in width") to the width of the original graphic data object.

However, while Kataoka does discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22), Kataoka does not disclose that the distance from which the expansion is calculated is a width that is calculated as product of the height ratio, i.e. the target screen height to the original screen height, and the width of the original screen. Qureshi discloses comparing the height of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 264). This scaling factor is then used to calculate the new width (Fig. 10B 268). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the subtracting the product of the height ratio and the width of the original screen from the width of the target screen. One would have been motivated to do this in order to easily control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

Further, Kataoka does not disclose that the original graphic data object is first proportionately modified by multiplying each of the height, width, distance from the top edge, and distance from the left edge of the first original graphic data object by the height ratio to obtain a proportionate graphic object before a target graphic data object is

obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273, i.e. multiplying by a constant) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

in the event that the target screen is proportionately higher than the original screen:

identifying a resizing point along a vertical axis of the original screen (Fig. 3 342 "transformation assist line" intersects a point on the vertical axis);

determining that the original graphic data object is disproportionately resizable because a line through the resizing point and perpendicular to the vertical axis intersects

the original graphic object (col 7 lines 51-52 "based on their location relative to the transformation assist line", line 342 intersects object 326);

obtaining a target graphic object by adding a stretch distance (col 7 lines 48-52 "expand in height") to the height of the original graphic data object.

However, while Kataoka does discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22), Kataoka does not disclose that the distance from which the expansion is calculated is a height that is calculated as product of the width ratio, i.e. the target screen width to the original screen width, and the height of the original screen. Qureshi discloses comparing the height of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 264). This scaling factor is then used to calculate the new width (Fig. 10B 268). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the subtracting the product of the width ratio and the height of the original screen from the height of the target screen. One would have been motivated to do this in order to easily control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

Further, Kataoka does not disclose that the original graphic data object is first proportionately modified by multiplying each of the height, width, distance from the top edge, and distance from the left edge of the first original graphic data object by the width ratio to obtain a proportionate graphic object before a target graphic data object is

obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273, i.e. multiplying by a constant) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Further, Kataoka discloses rendering the target graphic data object in association with a screen (col 7 lines 17-18, Fig. 3, 4), wherein the target screen has a different aspect ratio than the original screen (col 7 lines 19-20, Fig. 9-10 Container Information).

Claim 42: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium as in claim 41 above, and Qureshi further discloses obtaining graphic characteristics for and text attached to the original graphic data object on the original screen (col

12 lines 1-13, lines 35-42); repositioning the attached text to correspond to the target graphic data object on the target screen (col 13 lines 41-52); and applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen (col 15 lines 27-35). Therefore, it would have been obvious to one having ordinary skill in the art, and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to include said characteristic and text reformatting and application steps, as taught by Qureshi, in the graphic object scaling method taught by Kataoka and Qureshi. One would have been motivated to include these steps in order to preserve the originally disclosed information and properties so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 43: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium, including obtaining and maintaining graphical characteristics for and text attached to the original graphic data object after scaling, as in claim 42 above, and Qureshi further discloses the repositioning further comprises maintaining the text within the opposing top and bottom edges and the opposing left and right edges of the first target graphic object (col 15 lines 11-20). Therefore, it would have been obvious to one having ordinary skill, and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to maintain the attached text within the confines of the rectangular graphic object, as taught by Qureshi, when the original graphic data object is resized according to the method taught by Kataoka and Qureshi. One would have been motivated to reformat the text in such a way as to preserve the integrity of the information conveyed by the text before and after the size

increase of the original graphic data object, thereby conveying the same information to an end-user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claims 44-46: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium, including obtaining and maintaining graphical characteristics for and text attached to the original graphic data object after scaling, as in claim 42 above, and Qureshi further discloses obtaining different characteristics of slide presentations (col 12 lines 1-13, lines 35-42). One having ordinary skill in the art at the time the invention was made would understand that the different characteristics of a slide presentation include fill patterns, color designation, and border styles. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time of the invention was made, to maintain these known characteristics, as taught by Qureshi, after the size change conducted by the method taught by Kataoka and Qureshi. One would have been motivated to maintain these features in order to preserve the originally disclosed information and properties, so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 47: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium as in claim 41 above, and while Kataoka discloses outputting a display that includes the target graphic data object (Abstract), neither Kataoka nor Qureshi explicitly disclose calculating display coordinates by rounding to an integer value, coordinates associated with the target graphic data object, thereby potentially modifying the size of the target graphic data object. However, Official Notice is taken that it is old and well known in the graphic display arts to round display values to integers in order to display graphical objects on an

integer pixel display system. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time the present invention was made, to round the calculated coordinate values of the target graphic object to obtain an integer value. One would have been motivated to round to the nearest integer value in order to prevent loss of graphic display object due to the pixel display systems' inability to render color at a fraction of a pixel.

Claim 48: Kataoka discloses a computer readable media comprising computer-readable instructions which, when executed by a computing system, performs steps that include (col 14 lines 65-67):

determining that:

an original screen is to be transformed (Abstract "change in display size) into a target screen of a different aspect ratio (col 7 lines 19-20, Fig. 9-10 Container Information), wherein the original and target screens each have opposing top and bottom edges with a respective height there between and opposing left and right edges with a respective width there between (Fig. 3 300, Fig. 4 300);

a resizing point is defined on the original screen (Fig. 3 lines 341 and 342 intersect the original screen on the horizontal and vertical axes respectively); and

a resizing line perpendicular to one of the edges of the original screen intersects (Fig. 3 lines 341 and 342 intersect the original screen on the horizontal and vertical axes respectively):

the resizing point (Fig. 3 lines 341 and 342 intersect the original screen on the horizontal and vertical axes respectively); and

one or more original points on at least one edge of an original graphic data object (Fig. 3 lines 341 and 342 intersect the edges of original graphic objects 321-326, 331, 332) having a plurality of points each having respective distances from the opposing top and bottom edges of the original screen and from the opposing left and right edges of the original screen (Fig. 3, objects 321-326, 331, 332) where based on the intersection of the resizing line with the one or more original points, the original graphic data object is designated as being disproportionately resizable (col 7 lines 51-52 "based on their location relative to the transformation assist line";

in an event that the target screen is proportionately wider than the original screen and the resizing point is along a horizontal axis of the original screen (Fig. 3-Fig.4 line 341 intersects a resizing point on the horizontal axis):

objects and the screen are all represented by points in a two axis system (Fig. 9-10), therefore, it is inherent to the method that all calculations done on these objects and screens are done in the point system, including multiplication, addition, subtraction and transforms;

obtaining a target graphic object by àdding a stretch distance (col 7 lines 48-52 "expand in width") to the width of the original graphic data object by:

for each of the points to the right of the line, adding the stretch distance to the corresponding target point from the left edge of the target screen (col 10 lines 54-67, col 11 lines 102);

for each of the points intersected by the line, expanding to a length equal to the stretch distance and becoming a line (Fig. 3 points of object 326 that

intersect line 341 are expanded to lines in Fig. 4 equal to the stretch distance col 10 lines 66-67, col 11 lines 1-2).

However, while Kataoka does discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22), Kataoka does not disclose that the distance from which the expansion is calculated is a width that is calculated as product of the height ratio, i.e. the target screen height to the original screen height, and the width of the original screen. Qureshi discloses comparing the height of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 264). This scaling factor is then used to calculate the new width (Fig. 10B 268). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the subtracting the product of the height ratio and the width of the original screen from the width of the target screen. One would have been motivated to do this in order to easily control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

Further, Kataoka does not disclose that the original graphic data object is first proportionately modified by multiplying each of the height, width, distance from the top edge, and distance from the left edge of the first original graphic data object by the height ratio to obtain a proportionate graphic object before a target graphic data object is obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects

to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273, i.e. multiplying by a constant) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

in an event that the target screen is proportionately higher than the original screen and the resizing point is along a vertical axis of the original screen (Fig. 3-Fig.4 line 342 intersects a resizing point on the vertical axis):

objects and the screen are all represented by points in a two axis system (Fig. 9-10), therefore, it is inherent to the method that all calculations done on these objects and screens are done in the point system, including multiplication, addition, subtraction and transforms;

obtaining a target graphic object by adding a stretch distance (col 7 lines 48-52 "expand in height") to the height of the original graphic data object by:

for each of the points to the top of the line, adding the stretch distance to the corresponding target point from the left edge of the target screen (col 11 lines 25-41);

for each of the points intersected by the line, expanding to a length equal to the stretch distance and becoming a line (Fig. 3 points of object 326 that intersect line 342 are expanded to lines in Fig. 4 equal to the stretch distance col 11 lines 38-41).

However, while Kataoka does discloses calculating the stretch distance as the distance to which the target window has expanded (col 8 lines 19-22), Kataoka does not disclose that the distance from which the expansion is calculated is a height that is calculated as product of the width ratio, i.e. the target screen width to the original screen width, and the height of the original screen. Qureshi discloses comparing the height of the container to that of the browser window in order to calculate a scaling factor (Fig. 10B 264). This scaling factor is then used to calculate the new width (Fig. 10B 268). Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to calculate the stretch distance of Kataoka and Qureshi by determining the subtracting the product of the width ratio and the height of the original screen from the height of the target screen. One would have been motivated to do this in order to easily

control the size of each GUI part depending on the change in the designed screen, as suggested by Kataoka (col 7 lines 9-11).

Further, Kataoka does not disclose that the original graphic data object is first proportionately modified by multiplying each of the height, width, distance from the top edge, and distance from the left edge of the first original graphic data object by the width ratio to obtain a proportionate graphic object before a target graphic data object is obtained by adding a stretch distance to this proportionate graphic object. Qureshi discloses a method for automatically sizing and positioning a graphical display of objects to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 "after the height of the browser has been decreased, its width remaining constant"). Qureshi employs a scaling factor (Fig. 10B 266-273, i.e. multiplying by a constant) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed, as taught by Qureshi, before stretching the graphic object to obtain a target graphic object, as taught by Kataoka, in order to render a target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Further, Kataoka discloses forming a target graphic data object in association with a screen (col 7 lines 17-18, Fig. 3, 4) from the proportional points and lines.

Claim 49: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium as in claim 48 above, and Qureshi further discloses obtaining graphic characteristics for and text attached to the original graphic data object on the original screen (col 12 lines 1-13, lines 35-42); repositioning the attached text to correspond to the target graphic data object on the target screen (col 13 lines 41-52); and applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen (col 15 lines 27-35). Therefore, it would have been obvious to one having ordinary skill in the art, and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to include said characteristic and text reformatting and application steps, as taught by Qureshi, in the graphic object scaling method taught by Kataoka and Qureshi. One would have been motivated to include these steps in order to preserve the originally disclosed information and properties so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 50: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium, including obtaining and maintaining graphical characteristics for and text attached to the original graphic data object after scaling, as in claim 49 above, and Qureshi further discloses the repositioning further comprises maintaining the text within the opposing top and bottom edges and the opposing left and right edges of the first target graphic object (col 15 lines 11-20). Therefore, it would have been obvious to one having ordinary skill,

and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to maintain the attached text within the confines of the rectangular graphic object, as taught by Qureshi, when the original graphic data object is resized according to the method taught by Kataoka and Qureshi. One would have been motivated to reformat the text in such a way as to preserve the integrity of the information conveyed by the text before and after the size increase of the original graphic data object, thereby conveying the same information to an end-user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claims 51-53: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium, including obtaining and maintaining graphical characteristics for and text attached to the original graphic data object after scaling, as in claim 449 above, and Qureshi further discloses obtaining different characteristics of slide presentations (col 12 lines 1-13, lines 35-42). One having ordinary skill in the art at the time the invention was made would understand that the different characteristics of a slide presentation include fill patterns, color designation, and border styles. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time of the invention was made, to maintain these known characteristics, as taught by Qureshi, after the size change conducted by the method taught by Kataoka and Qureshi. One would have been motivated to maintain these features in order to preserve the originally disclosed information and properties, so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 54: Kataoka and Qureshi disclose the graphic object scaling method implemented by a computer readable medium as in claim 48 above, and while Kataoka discloses outputting a

display that includes the target graphic data object (Abstract), neither Kataoka nor Qureshi explicitly disclose calculating display coordinates by rounding to an integer value, coordinates associated with the target graphic data object, thereby potentially modifying the size of the target graphic data object. However, Official Notice is taken that it is old and well known in the graphic display arts to round display values to integers in order to display graphical objects on an integer pixel display system. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time the present invention was made, to round the calculated coordinate values of the target graphic object to obtain an integer value. One would have been motivated to round to the nearest integer value in order to prevent loss of graphic display object due to the pixel display systems' inability to render color at a fraction of a pixel.

Claim 55: Kataoka discloses a computer graphics system (Fig. 1) for obtaining first and second target graphic data objects (Fig. 4 321-326, 331, 332) on a substantially rectangular target screen (Fig. 4 300) based on first and second original graphic data objects (Fig. 3 321-326, 331, 332) on a substantially rectangular original screen (Fig. 3 300), the target screen having a different aspect ratio than that of the original screen (col 7 lines 19-20, Fig. 9-10 Container Information), the computer graphics system comprising:

means for identifying a line perpendicular to an edge of the original screen (Fig. 3 341, 342), wherein the line projects from a resizing point on the edge (Fig. 3 341, 342 lines project from a point on the edge of 300);

means for determining that the first original graphic data object is proportionally resizable because the line does not intersect the first original graphic object data object (col 7

lines 18-39, “the designed image divided into four partitions by the transformation assist lines”, “the arrangement sand the sizes of the GUI parts are then changed depending on which partition they are arranged in”);

means for determining that the second original graphic data object is non-proportionally resizable because the line intersects the second original graphic data object (col 7 lines 18-39, “the designed image divided into four partitions by the transformation assist lines”, “the arrangement sand the sizes of the GUI parts are then changed depending on which partition they are arranged in”);

means for non-proportionally resizing the second original graphic data object by addition of a stretch distance thereto to obtain a second target graphic data object (col 7 lines 48-52 “expand in width”).

However, Kataoka does not disclose means for proportionally resizing the first original graphic data object to obtain a first target graphic data object nor that the means for non-proportionately resizing the second original graphic data object includes first resizing the second original graphic data object proportionately to obtain a proportionate graphic data object and that the non-proportionate resizing is then acted on the proportionate graphic data object to obtain a second target graphic data object. Qureshi discloses a system for automatically sizing and positioning a graphical display of objects to fit the dimensions and video display resolution of a display window that has a different aspect ratio (Abstract, Fig. 4, col 5 lines 62-64 “after the height of the browser has been decreased, its width remaining constant”). Qureshi employs a scaling factor (Fig. 10B 266-273) in order to obtain proportionately changed height, width, and font sizes of an object. Therefore, it would have been obvious to one having ordinary skill in the

art and having the teachings of Kataoka and Qureshi before them at the time the present invention was made, to implement a proportionate resizing of a graphic object when the display resolution is changed to obtain a proportionate graphic object, as taught by Qureshi, before stretching the proportionate graphic object that is intersected by a resizing line to obtain a target graphic object, as taught by Kataoka, in order to render a disproportionately resized target graphic object and a proportionate target graphic object on a target screen. One would have been motivated to do this in order to first scale the object to not appear to large or too small, as suggested by Qureshi (col 3 lines 44-67), and then to stretch only the objects that the resizing line intersects in order to realize a process cost reduction, as suggested by Kataoka (col 3 line 4).

Claim 56: Kataoka and Qureshi disclose the proportionate and non-proportionate graphic object scaling computer system of claim 55 above, and Kataoka further discloses the target screen is proportionally wider than the original screen (Fig. 9, 10, col 10 lines 36-39); and the stretch distance is added to the width of the proportional graphic data object (col 7 lines 48-52 "expand in width").

Claim 59 and 64: Kataoka and Qureshi disclose the proportionate and non-proportionate graphic object scaling computer system of claim 55 above, and Qureshi further discloses means for obtaining graphic characteristics for and text attached to the original graphic data object on the original screen (col 12 lines 1-13, lines 35-42); repositioning the attached text to correspond to the target graphic data object on the target screen (col 13 lines 41-52); and applying the graphic characteristics for the original graphic data object on the original screen on the target graphic data object on the target screen (col 15 lines 27-35). Therefore, it would have been obvious to one having ordinary skill in the art, and having the teachings of Kataoka and Qureshi before

them at the time the invention was made, to include said characteristic and text reformatting and application steps, as taught by Qureshi, in the graphic object scaling method taught by Kataoka and Qureshi. One would have been motivated to include these steps in order to preserve the originally disclosed information and properties so that the creator of the said text and characteristics conveys the same information to the end user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 60 and 65: Kataoka and Qureshi disclose the proportionate and non-proportionate graphic object scaling computer system of claim 59 above, and Qureshi further discloses wherein the means for the repositioning further comprises maintaining the text within the opposing top and bottom edges and the opposing left and right edges of the first target graphic object (col 15 lines 11-20). Therefore, it would have been obvious to one having ordinary skill, and having the teachings of Kataoka and Qureshi before them at the time the invention was made, to maintain the attached text within the confines of the rectangular graphic object, as taught by Qureshi, when the original graphic data object is resized according to the method taught by Kataoka and Qureshi. One would have been motivated to reformat the text in such a way as to preserve the integrity of the information conveyed by the text before and after the size increase of the original graphic data object, thereby conveying the same information to an end-user independent of size, as suggested by Qureshi (col 4 lines 26-38).

Claim 61: Kataoka and Qureshi disclose the proportionate and non-proportionate graphic object scaling computer system of claim 55 above, and while Kataoka discloses outputting a display that includes the target graphic data object (Abstract), neither Kataoka nor Qureshi explicitly disclose means for calculating display coordinates by rounding to an integer value, coordinates

associated with the target graphic data object, thereby potentially modifying the size of the target graphic data object. However, Official Notice is taken that it is old and well known in the graphic display arts to round display values to integers in order to display graphical objects on an integer pixel display system. Therefore, it would have been obvious to one having ordinary skill in the art, and the teachings of Kataoka and Qureshi before them at the time the present invention was made, to round the calculated coordinate values of the target graphic object to obtain an integer value. One would have been motivated to round to the nearest integer value in order to prevent loss of graphic display object due to the pixel display systems' inability to render color at a fraction of a pixel.

Claim 63: Kataoka and Qureshi disclose the proportionate and non-proportionate graphic object scaling computer system of claim 55 above, and Kataoka further discloses the target screen is proportionally higher than the original screen (Fig. 9, 10, col 10 lines 36-39); and the stretch distance is added to the height of the proportional graphic data object (col 7 lines 48-52 "expand in height").

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach

- Hodgkinson (US 2002/0089523) – pertains to dynamic adjustments of displays for different display formats.
- Sprague et al. (US 5,384,904) – pertains to image scaling using scale factors.
- Lovell et al. (US 6,414,698) – pertains to adaptive sizing of display elements.
- Cooper et al. (US 6,636,235) – pertains to letter and font adjustments when display resolutions are changed.
- Breinberg (US 6,950,993) – pertains to automatic resizing and dynamic layout of resizable dialog windows.
- Noguchi et al. (US 6,954,897) – pertains to adjusting font size in a electronic program guide display.
- Bailey et al. (US 7,257,776) – pertains to scaling interface elements to display dimensions based on a sizing system schema.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Tank whose telephone number is 571-270-1692. The examiner can normally be reached on Mon - Fri (Alt. Fri Off) 0730-1500 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on 571-272-4048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AT

ALT
September 12, 2007

TADESSE HAILU
Patent Examiner